Synopsis

TASK 1 : Chatbot using the RASA framework

1. **Approach :**
    - First read the Documentation and found that Task 1 is based on creating Chatbot with RASA framework.
    - Gone through all the necessary requirements to complete the Chatbot.
    - Searched for some documents and tutorials to understand the architecture of the RASA framework.
    - By understanding the architecture, I have completed the chatbot.
    - After completing Chatbot is working fine on the local server.
    - Then I created a Bot on Telegram and I have connected the local server with Telegram by using NGROK.
    - Username of my chatbot is @Covid_Assistance_bot
    - After that I thought of Deploying it on cloud (Heroku)
    - we need to create a Docker file, I was facing a problem and I could not deploy it in the cloud.
2. **Findings**
    - I found that RASA is a Open source machine learning framework to automate text and voice based assistance.
    - Rasa is a framework for Natural language understanding, dialogue management and integration.
    - I have trained the chatbot to give necessary information about COVID-19
    - I have used APIs for extracting the active number of COVID cases in India for giving information to users.
3. **Challenges and Opinions**
    - Understanding the working of the RASA framework.
    - Using APIs for extracting the active number of COVID cases.
    - I feel that the necessary requirements that you have given in the Documentation is fine for assisting a user regarding COVID.
4. **Conclusion**
    - I feel that the idea of creating Covid Chatbot is definitely necessary at this point of time,because the entire world is affected and we are not having necessary service. It is good to train the Chatbot in a much better way, so that there is no requirement of humans to assist humans.

TASK 2 : Stocks and Prices

1. **Approach :**
    - First read the Documentation and found that Task 2 is based on S&P 500 is one of the world's leading benchmark indices consisting of 500 publicly listed companies.
    - I downloaded the data and analysed it whether the data is in a structured or not.
    - I have loaded the data with python code and started analysing the data.
    - I have created a new column called target by considering, if close price less than open price then 0 and if close price is greater than open price then 1.
    - And then I started Model building.
2. **Findings :**
    - I found that there are 619040 rows in the dataset and in that we are having from 2013 to 2018.
    - It is found that PCLN,GOOGL,AZO,CMG,AMZN stocks are having high stock prices for 2013. In the same way we can find the high stock prices every year.
    - Predicted whether a particular stock will close lower than it opened or higher than it opened.
3. **Challenges and Opinions**
    - Predicting whether a particular stock will close lower than it opened or higher than it opened.
    - It is good to find whether a particular stock will close lower than it opened or higher than it opened,because as a user one has to know the stock price will reduce or not for investing.
4. **Conclusion**
    - By following the Guidelines and Objectives given in the Documentation, one can Analyse the data and find whether the stock price will reduce or not for investing.